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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,955	11/13/2003	Michele Hallak-Stamler	RADSA 20.650	9541

26304 7590 02/05/2007

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EXAMINER	
KUMAR, ANIL N	
ART UNIT	PAPER NUMBER
2109	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/712,955	HALLAK-STAMLER, MICHELE	
	Examiner	Art Unit	
	Anil N. Kumar	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/13/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the original filing of November 13th, 2003. Claims (1-53) are pending and have been considered below.

Examiner's Note. The Applicant appears to be attempting to invoke 35 U.S.C. 112 6th paragraph in Claims 20, 25, 26, 27 and 30 by using "means-plus-function" language.

Claims 20 and 25 includes "...means for creating and configuring..." The specifications discloses generic computing environment with no specific hardware requirements. Thus it fails the 3rd prong of the 3-pronged Test by NOT limiting the means to a specific structure.

Claims 20 and 25 includes "...means for selecting storage device..." The specifications discloses generic computing environment with no specific hardware requirements. Thus it fails the 3rd prong of the 3-pronged Test by NOT limiting the means to a specific structure.

Claims 26 and 25 includes "...means for determining the type..." The specifications discloses generic computing environment with no specific hardware requirements. Thus it fails the 3rd prong of the 3-pronged Test by NOT limiting the means to a specific structure.

Claims 26 and 25 includes "...means for exposing each of..." The specifications discloses generic computing environment with no specific hardware requirements. Thus it fails the 3rd prong of the 3-pronged Test by NOT limiting the means to a specific structure.

Claim 27 includes "means for creating virtual volume is a toolbar" that is disclosed in the specifications being a software feature which in not considered to be a specific structure.

Claim 30 includes "means for creating virtual volume..." that is disclosed in the specifications being software features which in not considered to be a specific structure.

Therefore, 35 U.S.C. 112 6th paragraph has NOT been successfully invoked when considering these claims below.

Specifications

2. The disclosure is objected to because of the following informalities: Fig. 6 referenced in page 11 line 9, is not found in the list of figures sited.

Appropriate correction is required.

3. The disclosure is objected to because of the following informalities: Figs. 1, 8A and 8B are not referenced in the specifications, except under Brief Description of the Drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 42-50 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 42-50 are drawn to a computer program or code per se. A computer program is not a series of steps or acts and this is not a process. A computer program is not a physical article or object and as such is not a machine or manufacture. A computer program is not a combination of substances and therefore not a compilation of matter. Thus, a computer program by itself does not fall within any of the four categories of invention. Therefore, Claims 42-50 are not statutory.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-53 are rejected under 35 U.S.C. 103(a) as unpatentable over van Rietschote (US 6757778 B1) in view of DeKoning et al. (US 6769022 B1).

Claim 1: van Rietschote discloses a system for storage management (col 2 lines 4-13 and Fig. 1), which comprises a set of commands (methods) to manage storage system and communicate with other devices including storage devices but doesn't disclose a specific Graphical User Interface to perform standard management operations like configurations or monitor/display the status of the system. However, DeKoning et al. disclose Graphical User Interface to manage, configure and monitor a storage network by devices (col 2 lines 14-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Claim 2: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, van Rietschote discloses that any virtual machine (storage management system) consists of data structures that are stored in files (database) (col 9 lines 1-3).

Claim 3: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 2 above. Furthermore, van Rietschote discloses that storage commands also include one or more parameters as defined by storage command API (col 11 lines 25-26).

Claim 4: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, van Rietschote discloses that "... generally the volume manager may support any RAID levels..." including mirroring and striping (col 11 lines 3-7 and Fig. 2).

Claim 5: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as

in claim 1 above. Furthermore, van Rietschote discloses that "... volumes may be used to abstract...." (col 6 lines 35-36).

Claim 6: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 5 above. Furthermore, van Rietschote discloses that "... physical storage may be any type of device capable of storing data...." (col 8 lines 37-48).

Claim 7: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, van Rietschote discloses that "... different types of storage networks... SAN and NAS...." (col 1 lines 18-21). From applicants discussion of Prior Art, it is clear that most of the storage environment (SAN or NAS) contains switches and appliances (col 1 lines 18-21).

Claim 8: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, van Rietschote discloses a geographically distributed storage network (col 7 lines 1-2).

Claim 9: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as

in claim 1 above. Furthermore, van Rietschote discloses a set of commands to create a virtual volume (col 8 lines 9-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that the set of the commands would include selection and determination of the type of device, and exposing the virtual volume (Storage Virtualizer, Fig. 1) in order to facilitate the creation of van Rietschote virtual volumes.

Claim 10: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 9 above. Furthermore, van Rietschote discloses storage commands also include one or more parameters as defined by storage command API (col 11 lines 25-26).

Claim 11: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, DeKoning et al. disclose Graphical User Interface to distinguish between several regions (col 13 lines 14-17 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a topology map feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily

view a storage network, which will result in savings of time and money for the organization.

Claim 12: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, DeKoning et al. disclose a Graphical User Interface to display a tree structure (hierarchy) map (col 14 lines 7-12 and Fig. 7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily view a storage network in a hierarchical or a tree structure that will result in savings of time and money for the organization.

Claim 13: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 12 above. Furthermore, DeKoning et al. disclose a Graphical User Interface to display a device as an icon (col 13 lines 45-48 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily view and

monitor a storage network that will result in savings of time and money for the organization.

Claim 14: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, DeKoning et al. disclose a Graphical User Interface to display notifications for events (alerts) (col 9 lines 30-34 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor system alerts in a storage network that will result in savings of time and money for the organization.

Claim 15: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 14 above. Furthermore, DeKoning et al. disclose a Graphical User Interface to display notifications (alerts) (col 9 lines 30-34 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor and

react to system alerts in a storage network that will result in savings of time and money for the organization.

Claim 16: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, van Rietschote discloses an SNMP based management system that communicates with other network devices (col 4 lines 46-54 and Fig. 1).

Claim 17: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 2 above. Furthermore, van Rietschote discloses an embodiment of storing accessing a database (col 14 lines 36-53 and fig. 8).

Claim 18: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 1 above. Furthermore, van Rietschote discloses various commands to create, copy and move virtual volumes (col 8 lines 9-21). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a default set of parameters or use the last set of parameters to configure a new virtual volume in order to give the user in van Rietschote a starting point from which to create, copy and move virtual volumes.

Claim 19: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 3 above. Furthermore, van Rietschote discloses that "...a storage system can be configured to schedule various applications/operating system for execution..." (col 2 lines 14-16). It is clear form this, that same (share) configuration parameters can be used for different devices.

Claim 20: van Rietschote discloses a system for storage management (col 2 lines 4-13 and Fig. 1), which comprises a set of commands (methods) to manage storage system and communicate with other devices including storage devices but doesn't disclose a specific Graphical User Interface to perform the standard management operations like configurations or monitor/display the status of the system. However, DeKoning et al. disclose Graphical User Interface to manage, configure and monitor a storage network by devices (col 2 lines 14-19). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Claim 21: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, van Rietschote discloses that "... generally the volume manager may support any RAID levels..." including mirroring and striping (col 11 lines 3-7 and Fig. 2).

Claim 22: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, van Rietschote discloses that "... physical storage may be any type of device capable of storing data...." (col 8 lines 37-48).

Claim 23: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, van Rietschote discloses that "... different types of storage networks... SAN and NAS...." (col 1 lines 18-21). From applicants discussion of Prior Art, it is clear that most of the storage environment (SAN or NAS) contains switches and appliances (col 1 lines 18-21).

Claim 24: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, van Rietschote discloses a geographically distributed storage network (col 7 lines 1-2).

Claim 25: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, van Rietschote discloses a set of commands to create a virtual volume (col 8 lines 9-26). Therefore, it would have been expected of one having ordinary skill in the art at the time of the invention to provide for selection of the type of device as one of the commands.

Claim 26: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 25 above. Furthermore, DeKoning et al. discloses a set of commands to create a virtual volume (col 8 lines 9-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide for selection and determination of the type of device, including exposing the virtual volume (Storage Virtualizer, Fig. 1), in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily create and manage virtual volumes in a storage network that will result in savings of time and money for the organization.

Claim 27: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as

in claim 25 above. Furthermore, DeKoning et al. discloses a tool bar (Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize these toolbar to create virtual volumes, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily create virtual volumes in a storage network that will result in savings of time and money for the organization.

Claim 28: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 27 above. Furthermore, DeKoning et al. discloses a tool bar buttons (Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize these toolbar buttons to map some commands, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily create and manage virtual volumes in a storage network that will result in savings of time and money for the organization.

Claim 29: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 28 above. Furthermore, van Rietschote discloses a set of commands to create, copy and move virtual volume (col 8 lines 9-26). Therefore, it would have

been obvious to one having ordinary skill in the art at the time of the invention that the set of the commands would include selection and determination of the type of device, and exposing the virtual volume (Storage Virtualizer, Fig. 1) in order to facilitate the creation of van Rietschote virtual volumes.

Claim 30: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, DeKoning et al. discloses the steps for creating a new volume from a display screen (col 18 lines 13-15 and Fig. 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any standard method to for selection and manipulation of items on a display screen, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily create and manage virtual volumes in a storage network that will result in savings of time and money for the organization.

Claim 31: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 20 above. Furthermore, DeKoning et al. disclose a Graphical User Interface to display a tree structure (hierarchy) map (col 14 lines 7-12 and Fig. 7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network

Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily view a storage network in a hierarchical or a tree structure that will result in savings of time and money for the organization.

Claim 32: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 31 above. Furthermore, DeKoning et al. disclose a Graphical User Interface to display a device as an icon (col 13 lines 45-48 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily view and monitor a storage network that will result in savings of time and money for the organization.

Claim 33: van Rietschote discloses a system for storage management system (col 2 lines 4-13 and Fig. 1), which comprises a set of commands (methods) to manage, including synchronization (col 19 lines 25-28) and communications with other devices including storage devices but doesn't disclose a specific Graphical User Interface to perform the standard management operations like configurations or display the status of the system. However, DeKoning et al.

disclose Graphical User Interface to manage, configure and monitor a storage network by devices (col 2 lines 14-19 and Fig. 7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Claim 34: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 33 above. Furthermore, DeKoning et al. disclose Graphical User Interface to distinguish between several regions (col 13 lines 14-17 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to discover the topology before displaying a topology map for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily view a storage network, which will result in savings of time and money for the organization.

Claim 35: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as

in claim 34 above. . Furthermore, DeKoning et al. disclose a method for listening to events (alerts) and Graphical User Interface to display notifications for events (col 9 lines 30-34 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor system alerts in a storage network that will result in savings of time and money for the organization.

Claim 36: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 33 above. Furthermore, van Rietschote discloses that storage commands also include one or more parameters as defined by storage command API (col 11 lines 25-26).

Claim 37: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 33 above. Furthermore, van Rietschote discloses that "... generally the volume manager may support any RAID levels..." including mirroring and striping (col 11 lines 3-7 and Fig. 2).

Claim 38: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 33 above. Furthermore, van Rietschote discloses that volume manager manages the storage based on the volume attributes (parameters) (col 6 lines 47-49).

Claim 39: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 33 above. Furthermore, van Rietschote discloses a set of commands to create a virtual volume (col 8 lines 9-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that the set of the commands would include selection and determination of the type of device, and exposing the virtual volume (Storage Virtualizer, Fig. 1) in order to facilitate the creation of van Rietschote virtual volumes.

Claim 40: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 39 above. Furthermore, DeKoning et al. discloses the steps for creating a new volume from a display screen (col 18 lines 13-15 and Fig. 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any standard method to for selection and manipulation of items on a display screen, in van Rietschote. One would be motivated to provide

a GUI-based storage management system so that even non-technical people can easily create and manage virtual volumes in a storage network that will result in savings of time and money for the organization.

Claim 41: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 33 above. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide some default (synchronization) feature to configure new volume virtualization, in order to give the user in van Rietschote a easy way to synchronize newly created virtual volumes.

Claim 42: van Rietschote discloses a system for storage management system (col 2 lines 4-13 and Fig. 1), which comprises a set of commands (computer code) to manage, including synchronization (col 19 lines 25-28) and communications with other devices including storage devices but doesn't disclose a specific Graphical User Interface to perform the standard management operations like configurations or display the status of the system. However, DeKoning et al. disclose Graphical User Interface to manage, configure and monitor a storage network by devices (col 2 lines 14-19 and Fig. 7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van

Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Claim 43: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 42 above. Furthermore, DeKoning et al. disclose Graphical User Interface to distinguish between several regions (col 13 lines 14-17 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to discover the topology before displaying a topology map for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily view a storage network, which will result in savings of time and money for the organization.

Claim 44: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 43 above. . Furthermore, DeKoning et al. disclose a method for listening to events (alerts) and Graphical User Interface to display notifications for events (col 9 lines 30-34 and Fig. 6). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI

feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor system alerts in a storage network that will result in savings of time and money for the organization.

Claim 45: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 42 above. Furthermore, van Rietschote discloses that storage commands also include one or more parameters as defined by storage command API (col 11 lines 25-26).

Claim 46: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 42 above. Furthermore, van Rietschote discloses that "... generally the volume manager may support any RAID levels..." including mirroring and striping (col 11 lines 3-7 and Fig. 2).

Claim 47: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 42 above. Furthermore, van Rietschote discloses storage commands also include one or more parameters as defined by storage command API (col 11 lines 25-26).

Claim 48: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 42 above. Furthermore, van Rietschote discloses a set of commands to create a virtual volume (col 8 lines 9-26). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention that the set of the commands would include selection and determination of the type of device, and exposing the virtual volume (Storage Virtualizer, Fig. 1) in order to facilitate the creation of van Rietschote virtual volumes.

Claim 49: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 48 above. Furthermore, DeKoning et al. discloses the steps for creating a new volume from a display screen (col 18 lines 13-15 and Fig. 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any standard method to for selection and manipulation of items on a display screen, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily create and manage virtual volumes in a storage network that will result in savings of time and money for the organization.

Claim 50: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 42 above. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide some default (synchronization) feature to configure new volume virtualization, in order to give the user in van Rietschote a easy way to synchronize newly created virtual volumes.

Claim 51: van Rietschote discloses a system (apparatus) for storage management system (col 2 lines 4-13 and Fig. 1), which comprises a set of commands (methods) to manage and communicate with other devices including storage devices but doesn't disclose a specific Graphical User Interface to perform the standard management operations like configurations or display the status of the system. However, DeKoning et al. disclose Graphical User Interface to manage, configure and monitor a storage network by devices (col 2 lines 14-19 and Figs. 6, 7 and 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide this GUI feature for Storage Network Management, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Claim 52: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 51 above. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a GUI feature for creating virtual volumes and communicating with devices, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Claim 53: van Rietschote and DeKoning et al. disclose a storage management system to manage, configure and monitor network and devices using a GUI, as in claim 51 above. However, DeKoning et al. disclose Graphical User Interface to create a volume using the display screen (col 18 lines 13-15 and Fig. 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide an input device to manipulate a display screen (GUI feature) for creating virtual volumes and communicating with devices, in van Rietschote. One would be motivated to provide a GUI-based storage management system so that even non-technical people can easily monitor, configure and maintain a storage network, which will result in savings of time and money for the organization.

Conclusion

8. The prior art made for record and not relied upon is considered pertinent to applicant's disclosure.

a. Hahn et al. (US 6,725,446 B1) discloses an information distribution method and system

b. Howard et al. (US 6,768,994 B1) discloses a web based data mining ansd location data reporting system

c. Pasquali et al. (US 6,434,563 B1) discloses a WWW browser configured to provide windowed content manifestation environment

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anil N. Kumar whose telephone number is (571) 270-1693. The examiner can normally be reached on Mon-Fri EST (Alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Myhre can be reached on (571) 272-6722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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ANK

1/18/2007

James Myhre

Supervisory Primary Examiner